

WHAT CLAIMED IS:

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1. An image sensor comprising:
a plurality of optical sensors arranged in a linear form;
a plurality of thin film transistors, a first electrode of each of said thin film transistors being electrically connected to each of said optical sensors in series;
a plurality of amplifiers, each of said amplifiers being electrically connected to a second electrode of said thin film transistors.

2. An image sensor of claim 1 wherein said image sensor is a linear image sensor.

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3. An image sensor of claim 1 wherein a gate electrode of said each of said thin film transistors are electrically connected to at a shift register circuit over said substrate.

4. An image sensor of claim 1 wherein said second electrode of said each of said thin film transistors are electrically connected to a signal output terminal.

5. An image sensor of claim 1 wherein said optical sensor comprising an amorphous semiconductor layer formed over a bottom gate type thin film transistor.

6. An image sensor comprising:
a plurality of optical sensors arranged in a linear form;
a plurality of thin film transistors electrically connected to capacitors, a first electrode of each of said thin film transistors being electrically connected to each of said optical sensors in series, and said capacitors being electrically connected to said optical sensors in parallel;
a plurality of amplifiers electrically connected to a second electrode of said each of said thin film transistors.

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7. An image sensor of claim 6 wherein said image sensor is a linear image sensor.

8. An image sensor of claim 6 wherein a gate electrode of said each of said thin film transistors are electrically connected to at least one shift register circuit over said substrate.

9. An image sensor of claim 6 wherein said second electrode of said each of said thin film transistors are electrically connected to a signal output terminal.

10. An image sensor of claim 6 wherein said optical sensor comprising an amorphous semiconductor layer formed over a bottom gate type thin film transistor.

11. An image sensor comprising:
a plurality of row lines and a plurality of column lines arranged in a matrix form over a substrate;

a plurality of thin film transistors formed over said substrate, a gate electrode of each of said thin film transistors being electrically connected to said row line, and a first electrode of each of said thin film transistors being electrically connected to said column line; and

a plurality of optical sensors formed over said substrate, each of said optical sensors being electrically connected to a second electrode of said each of said thin film transistors in series.

12. An image sensor of claim 11 wherein said sensor is an area image sensor.

13. An image sensor of claim 11 wherein said row and said column lines are electrically connected to shift register circuits over said substrate.

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14. An image sensor of claim 11 wherein each of said column lines is electrically connected to a signal output terminal.

15. An image sensor of claim 11 wherein said optical sensor comprising an amorphous semiconductor layer formed over a bottom gate type thin film transistor.

16. An image sensor comprising:
a plurality of row lines and a plurality of column lines formed over a substrate;

a plurality of thin film transistors formed over said substrate, a gate electrode of each of said thin film transistors being electrically connected to said row line, and a first electrode of each of said thin film transistors being electrically connected to said column line;

a plurality of optical sensors formed over said substrate, each of said optical sensors being electrically connected to a second electrode of said each of said thin film transistors in series;

a plurality of capacitors, each of said capacitors being electrically connected to said second electrode, and being electrically connected to each of said optical sensors in parallel.

17. An image sensor of claim 16 wherein said image sensor is an area image sensor.

18. An image sensor of claim 16 wherein said row and said column lines are electrically connected to shift register circuits over said substrate.

19. An image sensor of claim 16 wherein each of said second electrodes is electrically connected to a signal output terminal.

20. An image sensor of claim 16 wherein said optical sensor comprising an amorphous semiconductor layer formed over a bottom gate type thin film transistor.

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